

25. CONSTRUCTION

INDUSTRY 25: CONSTRUCTION

INDUSTRY DEFINITION

SIC03 headings: 45

General construction work incl.: site preparation and demolition; building of complete constructions or parts thereof and civil engineering (including all types of buildings, bridges, tunnels, pipelines, roads, airfields, sports facilities, water projects etc); installation and completion (including wiring, insulation, plumbing, plastering, painting and glazing).

INDUSTRY STATISTICS

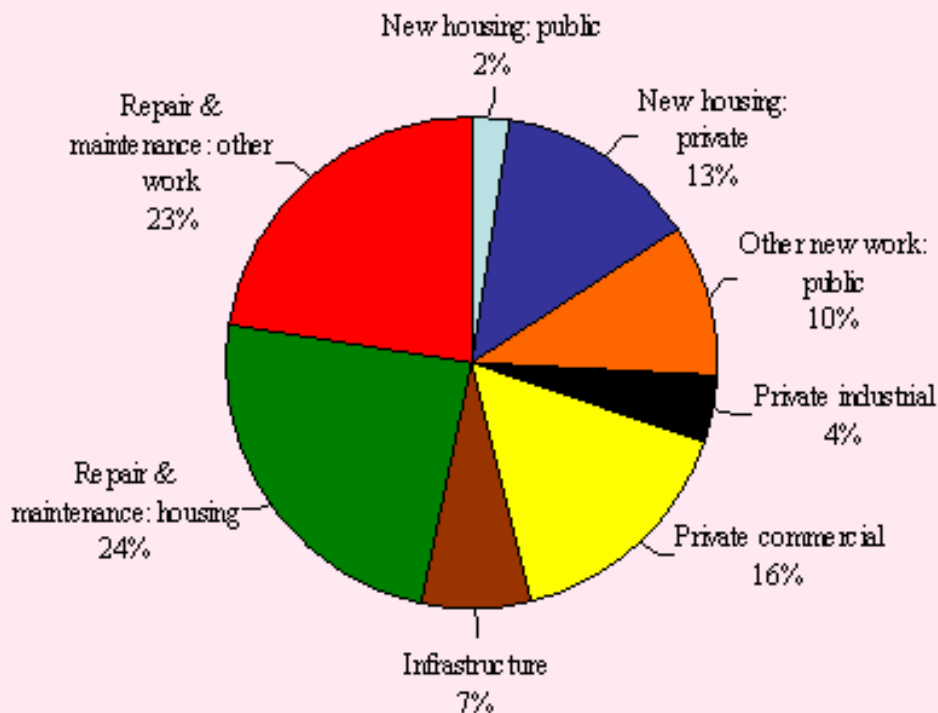
GVA share	6.1	(% of UK total)
Employment share	6.7	(% of UK total)
Employment	2064	('000)
Male : Female	90:10	(%)
Self-employed	41.6	(% of industry employment)
Export share	0.3	(% of commodity output)
Import share	0.4	(% of domestic demand)
Concentration ratio		very low

Principal producers

Balfour Beatty, Taylor Woodrow-Wimpey, Barratt Developments, Persimmon

Note(s) : Based on 5-firm concentration ratios: very low < 15%; low 15-30%; medium 31-55%; high 56-70% very high > 70%

INDUSTRY OUTPUT



25.1 Industry Background

Industry Profile: Construction

Large firms carry out a disproportionate share of the work in an industry dominated by small firms, but the construction industry is not highly concentrated

The construction industry is diffuse. In 2005 there were an estimated 182,644 firms (private contractors registered with the DTI) in the industry, distributed across a wide range of size classes and trade types. By employment, small firms and sole traders dominate the industry, but large firms carry out a disproportionate share of the work done (by value).

Some 97% of all firms in the industry employ fewer than 25 employees and since 2002 they have accounted for around 30% of the work done. By contrast, the largest firms (those with 300 employees or more) account for less than 1% of the industry's employment but they carry out around a third of the work. Even so, compared with some other sectors where economies of scale are more important, the industry remains lowly concentrated. The four largest firms in the industry (by turnover) (Balfour Beatty, Taylor Woodrow-Wimpey, Barratt Developments and Persimmon) had a combined turnover of approximately £18bn in 2006, when the value of all construction work carried out in Great Britain was £114bn. Ignoring exports, which would be small anyway, the top four firms hold about 16% of the market. Sole traders (firms with only one employee) are common (around 40% of all firms in recent years) but their share of work done is small, typically just 2-5% in recent years.

Breaking the structure down further, around 25% of the firms are engaged in *main trade* activities: housebuilding; non-residential building; and civil engineering. The remainder is accounted for by firms in specialist trades such as plumbing; installation of electrical wiring and fittings; joinery; painting; and roofing. By value, the distribution of work done between these two types is more even, with a 50:50 split typical, reflecting the fact that small firms and sole traders have a higher representation in specialist trades.

Three of the four largest firms in Construction are housebuilders

Although the construction industry remains fragmented there are a few notable big players. Following a string of M&A deals in 2006 and 2007H1, the largest firms (by turnover) in Construction are Balfour Beatty, Barratt

Developments, Taylor Woodrow-Wimpey and Persimmon.

Balfour Beatty earned total group revenues of £4.5bn in 2006 across its four divisions: building, building management and services; civil and specialist engineering and services; rail engineering and services; investments and developments. The first two divisions are its key revenue generators, bringing in 45% and 37% of total group revenues in 2006 respectively. The UK is its main market, accounting for around 82% of all revenues in 2006, with around 5% coming from continental Europe. North America accounted for just under 13%.

The other key players in Construction are all housebuilders. Of those, Persimmon is the smallest, with revenues of £3.1bn in 2006. The group employs around 5,300 people in the UK across its Persimmon, Charles Church and Westbury brands, with Westbury specialising in social housing. Persimmon completed just under 17,000 homes in 2006 and has a land bank of around 80,000 plots, which was the largest in the industry until the recent mergers and acquisitions.

Before taking over Wilson Bowden (Wilson) in February 2007, Barratt recorded total revenues of £2.4bn in the year to June 2006 and employed about 4,800 people in the UK. The company has 30 housebuilding divisions across the UK and a high percentage of its developments are sited on brownfield land. Total revenues earned by the combined group in 2006 were around £3.7bn. With roughly 20,000 housing completions in 2006 across both companies, the acquisition makes Barratt the second-largest housebuilder in the UK by volume. Its landbank is similar in size to that of Taylor Woodrow-Wimpey, at around 93,000 plots. The purchase of Wilson Bowden also gives Barratt access to the commercial development sector, which accounted for around 12% of Wilson's revenues in 2006.

Finally, Taylor Woodrow and Wimpey agreed to merge in March 2007, to form the largest UK housebuilder by turnover and completions. Figures for the two firms in 2006 show that the combined group earned total revenues of £6.7bn in 2006 and completed around 23,000 homes in the UK. Together, the two firms employed just under 9,000 workers in the UK before the merger and had a combined landbank of roughly 93,000 plots.

Wimpey's UK brands include George Wimpey, Laing Homes and G2, a specialist in compact, affordable housing targeted at first-time and key buyers. Prior to the merger, Wimpey reported total revenues of £3.1bn in 2006, with 76% of these generated in the UK. The remainder came from its US division, which operates under the Morrisons' Homes brand. Like Barratt, Wimpey now builds a considerable stock on brownfield land, with 71% of all UK completions being on brownfield sites in 2006. Taylor Woodrow also has

housebuilding operations in the US and these account for a larger share of its revenues and completions. In 2006, US revenues made up about one third of the £3.6bn earned by Taylor Woodrow in total, with 50% coming from its UK housing division. Consequently, around 30% of the combined group's revenues currently come from the US.

Commercial property development is driven by the strength of activity in retailing, leisure, office-based services and manufacturing

Development of commercial property is driven by the strength of activity in the sectors of the wider economy served by commercial real estate. For example, demand for shops, leisure and entertainment facilities is largely driven by growth in retailing and leisure services, which in turn is driven by the strength of household spending. Demand for offices is largely driven by growth in financial & business services (including IT services) and demand for factories is dependent on prospects in manufacturing.

A key characteristic of the commercial property market is that there can be long lags between a project's conception and its completion, notably in the case of offices and hotels. In spite of this, commercial property developers' investment decisions have in the past tended to be heavily influenced by recent sales and rental trends. Therefore, demand projections formed by developers during periods of rapid growth in demand are often unduly optimistic, resulting in over-supply and an overhang of property when the market cools. For example, the sharp contraction in new commercial work during the UK recession of the early 1990s reflected the overhang of speculative development in offices and retail that built up in the boom of the late 1980s, especially in London and other parts of south-east England.

Offices are the largest commercial property sub-sector followed by shops, entertainment facilities and factories. The construction of offices grew rapidly between 1997 and 2001, reflecting strong growth in demand from financial & business services (including IT services), but fell back during 2002 and 2003, reflecting the weak corporate backdrop, and has fluctuated since. However, the office market is in a better position than in the early 1990s. Output is now much less dependent on speculative development, while nominal interest rates are much lower than in the early 1990s.

Since the early 1970s, the UK housing market has been characterised by irregular periods of boom and bust but the last boom has not been followed by a price crash

The UK owner-occupied housing market has been subject to great volatility since the early 1970s, but the extent of this volatility has varied by region. During this

period there have been four booms, in 1971-73, 1978-80, 1983-89 and, most recently, between late-1996 and 2004. Each of these booms was triggered by a period of faster economic growth, and each took the ratio of house-price to earnings above (in the south of England well above) their historical average. A price bust followed each of the first three booms.

Each of the housing booms since 1970 has begun in London, with sharp increases in both house prices and housing transactions. The important role of London has again been evident in the boom that started in 1996. Following the usual pattern, once this house-price boom got under way, there were spillovers into adjacent regions (South East, South West, East of England and East Midlands), as workers in London sought housing in lower-cost areas within commuting distance. The momentum then picked up with inflationary expectations spreading to the whole of the UK. It is evident from the comparative experience of 'follower' regions such as Scotland and the North East that house-price volatility is largely a phenomenon of southern England; typically a correction to overblown house prices in the south has gone some way to returning regional differentials to a historical norm (even if the differential has shown some signs of widening over time).

Specific local areas show even stronger changes. The local areas with the highest house prices and greatest volatility are some London boroughs and places in the south of England along the major transport arteries from London, such as the M4.

The experience of falling interest rates in a context of positive earnings growth and low unemployment boosted the housing market over 2000-03. Housing has also been seen as a safe haven from the troubles of the stock market and the problems of declining pension funds, with buy-to-let investors providing sustained support at the bottom end of the market. Price falls in London as the boom faded were offset by some underlying upward trends in the ratios of house-price to earnings in those areas where supply is constrained. Analysts' expectations of a soft landing in the housing market in 2005 were fulfilled, as price rises continued to slow steadily. However, house-price inflation strengthened in 2006 as confidence returned and was back in double figures by early 2007. This is despite three increases in interest rates between August 2006 and January 2007 (from 4.5% to 5.25%). The Bank of England raised rates again in May 2007 (to 5.5%) and the full effect of this on the housing market is yet to be seen. We expect at least one further quarter point rise during 2007.

The rise in house prices since the mid-1990s has led to a sharp deterioration in affordability and this has stimulated government initiatives

Over the period 1996-2004 the average UK house price increased by around 160% in nominal terms, with annual house-price inflation reaching 20% in the middle of 2004. In contrast, consumer price inflation increased by only 22% over the same period while, more importantly, average earnings increased by only 40%. As a result the average house-price to earnings ratio increased from around 3 in 1996 to about 5.5 in 2004.

House-price inflation has moderated somewhat and the housing market remains healthy but the house-price/earnings ratio remains high by historical standards. As a result, some key sections of the public are unable to afford their own home, most notably first-time buyers, who tend to drive the market, and public sector workers in high cost areas.

One of the driving forces of the last boom was the rapid expansion in the buy-to-let market, in part fuelled by the poor performance of the stock markets, as investors turned to property to protect their capital and to generate an income stream from renting. The Council of Mortgage Lenders estimates that the value of outstanding buy-to-let mortgages rose from £9.1bn in 2000 to £73.4bn in 2005. In turn the impact on prices attracted speculators who invested funds in the market and drove prices up further.

As a result people with little wealth and on lower incomes found themselves unable to buy a home in some regions of the UK. This had knock-on effects in the labour market with some public sector services, particularly in the South East, unable to fill vacancies at the going wage rate. Even though public sector earnings have risen faster than those in the private sector in recent years, in most cases the rise has not been enough to bring the house-price/earnings ratio down.

The government has responded in several ways. An initial response was the Key Worker Living Scheme, which offered key workers loans of up to £50,000 to buy homes. However, it is available only to workers in the South East and has been vastly oversubscribed. It now looks to have been superseded by Homebuy, a nationwide shared-equity scheme designed to make it easier for people to own their own home. Under the scheme the homebuyer can buy an equity stake (as little as 25% in the case of new homes) in a house with the remaining share owned by the lender and a social landlord. Then, the homebuyer can increase their share of ownership in steps, up to 100%, as their circumstances improve. The scheme is targeted specifically at the groups most affected with only key public sector workers, social tenants and first-time buyers eligible to participate.

Secondly, and more generally, the government has announced initiatives to promote the building of

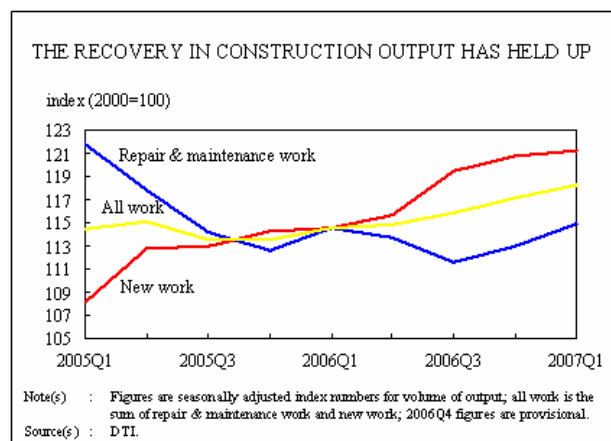
affordable housing aimed at helping those affected buy their own home. This follows the Barker Review(see http://www.hm-treasury.gov.uk/consultations_and_legislation/barker/consult_barker_in dex.cfm), which was set up to review the issues underlying the lack of supply and responsiveness of housing in the UK. Two of the Review's objectives were: to improve affordability in the market sector, and to create a more stable housing market. The Review indicated the need for a higher rate of housebuilding than was achieved during the boom period. Two of its scenarios suggested the building of an extra 70,000-120,000 private sector homes per year in order to bring down the trend in real house prices to a more desirable rate. The Review also recommended that more land be allocated for development.

Many of the developments will be in the area within 75 miles of London where the problem is most acute. In November 2005 the Government announced which firms had been selected to build the first of these housing developments. The first of these homes were available to buy in late 2006. However, some have criticised these developments, voicing concern that the expansion of the housing stock is not being met by a commensurate expansion in infrastructure facilities.

25.2 Recent Developments

Construction output has continued to grow steadily, but with no clear direction in the growth in new orders, the outlook appears flat

The most recent figures from the DTI show that the recovery in construction output held up throughout 2006 and into 2007 (see chart: The Recovery In Construction Output Has Held Up). Growth was driven by new work, the volume of which grew by 5.7% in 2006; in contrast, the volume of repair & maintenance work grew by just 0.3% in 2006.



Growth in repair & maintenance work was driven by public housing work and private other (non-housing) work in 2006 as the volume of work in other repair & maintenance categories fell.

With regard to new work, the growth in new, public housing was very strong; otherwise the growth in new work was driven by private work. The volume of new private housing grew by around 4% in 2006, while the volume of private commercial work grew by roughly 15½% in 2006. There was also strong growth in private industrial work, although this is only around a third of the size of commercial work. In other categories, the volume of work fell in 2006.

Looking ahead, the outlook appears a little flat. The volume of new orders fell back in the last two quarters of 2006 but then picked up in 2007Q1. New orders for housing and other (non-housing) work both picked up overall in 2006. New housing orders fluctuated in 2006H2 and fell back in 2007Q1 while new orders for other work fell in 2006H2 before picking up in 2007Q1. There was no clear trend in new housing orders, which fluctuated between quarters for both public and private housing. The trend in new orders for other work was driven by the private commercial sector, where orders increased by 35% in 2006. But a key concern must be that new orders for private commercial work fell in each of the last two quarters of 2006, perhaps in response to the two increases in interest rates; the pick up in 2007Q1 was slight. Orders for infrastructure and public other work have been volatile with no clear trend. Meanwhile, after falling in 2006H1, orders for private industrial work picked up in 2006H2 and were up by just under 4% in 2006, consistent with a somewhat improved outlook in manufacturing.

Demand for private commercial work is being supported by orders for offices, the value of which strengthened slightly in 2006H2 and 2007Q1, as the value of orders from each of the other key drivers (shops, entertainment, education and health) fell back in 2006H2, quite considerably in some cases.

The major construction firms are broadly optimistic about the prospects for 2007 but higher interest rates and pressure on margins could hit profitability

Since the last edition of *Industry and the British Economy* several construction firms have issued trading statements and most were up-beat about the prospects for 2007. Alfred McAlpine, the infrastructure group, expects to report profits for 2006 at the top end of expectations and its prospects for 2007 look good after it reported an increased order book and a healthy pipeline of new opportunities. It expects the performance of 2006 to be sustained in 2007. At the same time, Galliford Try revealed that first-half results would be in line with expectations after a record volume of completions in

2006H2 and higher selling prices. It also reported buoyant demand in its public sector and commercial markets. Galliford Try, which bought Linden Homes in February, is confident the positive market conditions will continue in 2007.

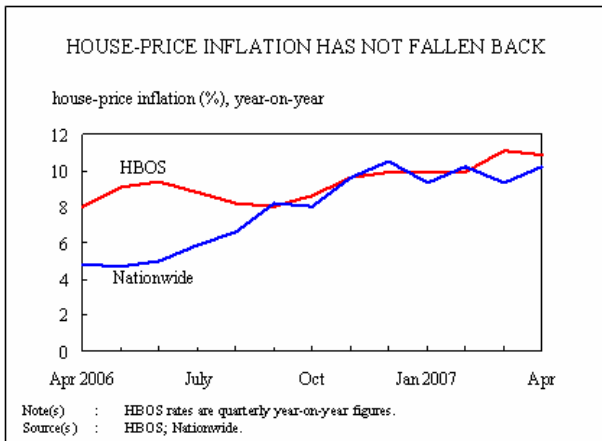
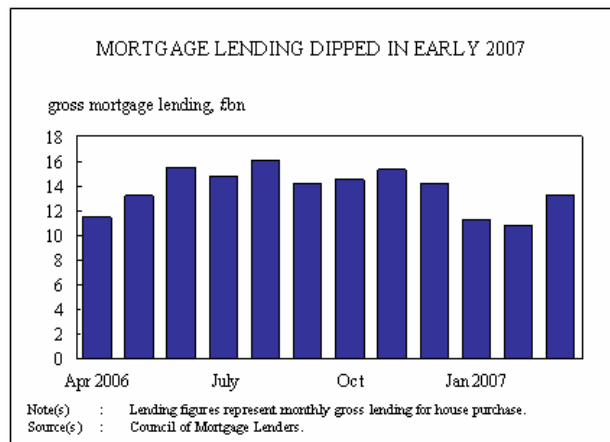
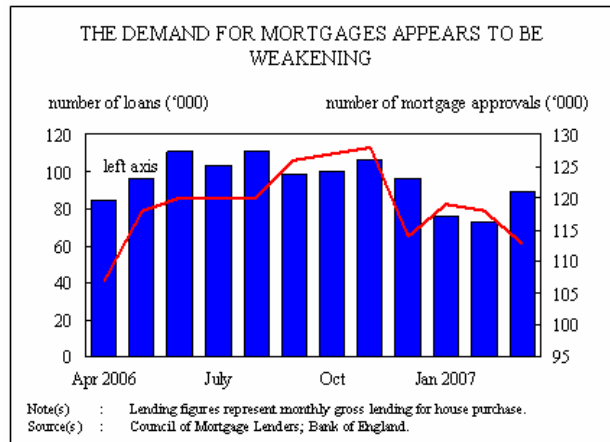
Bellway, which is heavily exposed to the first-time buyer and social housing markets, is expecting to report record profits for 2006/07. However, it warned that it was having to offer discounts outside its growth markets (Scotland and the Thames Gateway) in order to secure sales and that this was beginning to squeeze margins. It remains confident for 2007, but it could be hit by falling affordability amongst first-time buyers over the year, especially if interest rates rise further. Bovis too reported rising sales prices and an increase in completions over 2006.

There are some concerns that prospects may be dampened by higher interest rates in 2007. Redrow is cautiously optimistic for 2007 but it raised concern about the impact of higher interest rates following January's rate rise. Redrow also voiced concern that under-resourced local authorities could slow up the planning process and delay projects starts. Barratt too was cautiously optimistic following January's rate rise, saying it could not be certain about prospects for 2007. It did not think January's rise would have much impact on market trends as it saw no fall-off in interest following the two increases in interest rates in 2006H2. It said a strong order book would keep it busy in the second half of 2007 and that the market would be supported by difficulties with planning.

Beyond UK shores, the slowdown in the US housing market looks to have hurt UK housebuilders with a heavy presence there. Taylor Woodrow and Wimpey, who merged in March, both had to take write-downs on their North American land banks in 2006: £21m and £60.5m respectively. Wimpey's profits fell as a result. Taylor Woodrow saw average selling prices fall, but it still expects 2006 profits to be at the top end of expectations. The UK market was more favourable for Taylor Woodrow in 2006: completions and prices increased, margins improved in the second half of 2006 and orders increased by 30%. Ahead of its merger, it believed the prospects for the UK housing market in 2007 remain good due to the undersupply of new housing. Meanwhile, Wimpey has been enjoying improved margins, due in part to a cost-cutting programme aimed at reducing costs by £25m in 2007. Wimpey's margins continued to be below the industry average, however, in part because its social housing work had been growing faster than private housing work. Crest Nicholson has also seen margins fall as a result of a considerable increase in its social housing output.

House-price inflation remains strong but mortgage demand has weakened

Despite three increases in interest rates between August 2006 and January 2007, house-price inflation strengthened coming into 2007 and is in double figures again (see chart: House-price Inflation Has Not Fallen Back). However, the number of people seeking and taking out mortgages has fallen back a little since November 2006 (see chart: The Demand for Mortgages Appears to be Weakening). Furthermore, monthly mortgage lending fell back a little at the start of 2007 before picking up in March (see chart: Mortgage Lending Dipped in Early 2007), but it remains to be seen if this is the start of a sustained pick-up, particularly given the further rate increase in May and the prospect of another rise, later in 2007. These features suggest a picture of fewer people entering the market for a home, but, at the same time, those that do are still paying at the top end for property, possibly with substantial deposits or alternative funding. The healthy bonuses seen in the City in January may be one factor driving this aggregate picture. The diverging trends of mortgage demand and house-price inflation also suggest that fewer properties are being put up for sale. With fewer properties for sale and fewer people entering the market, the consequence should be fewer transactions being completed, and indeed, the number of property transactions fell in 2007Q1.



This scenario is not sustainable in the long term. At some point the number of people being excluded from the housing market must become substantial enough to bring house-price inflation down to more sustainable levels in order to make homes more affordable and attract potential home-buyers back into the markets. A slowdown in house-price inflation seems likely therefore, and the increase in interest rates in May 2007 should help to bring this about. In the meantime, the increasing amount of affordable housing being built by the industry should bring some liquidity to the housing market and help to keep the average price down.

Skills and materials shortages are emerging in construction

While construction firms are positive about the outlook for 2007 they are becoming worried about the scarcity of skilled labour. The shortage of labour is currently delaying around one third of all jobs according to the most recent joint survey for the Construction Products Association and the Construction Confederation, published in May 2007. The shortage is due, in part, to the low numbers completing apprenticeships in the late-

1990s and early-2000s. Some contractors are now worried that wage inflation could accelerate and hit margins. Construction engineering is one sub-sector seeing strong upward price pressure. Steelworkers, platers and welders now look set to agree a 15% pay rise between May 2007 and January 2010, which corresponds to an annual rate of roughly 5.6% pa. Union leaders had accepted the deal in April but members rejected it because the new conditions included a provision for buying out tea breaks. In late May, employers backed down on the plans to scrap tea breaks and so the new three year agreement is likely to be confirmed.

Elsewhere, however, wage inflation for some other trades has slowed. The Federation of Master Builders and the T&G union reached agreement in March 2007 on pay increases at small and medium-sized building firms over 2007-08. Under the Batjic (Building and Allied Trades Joint Industrial Council) agreement, wages will increase by 4% over 2007-08, which is lower than the 4½% agreed for 2006-07 and 9% for 2005-06.

Meanwhile, steelwork contractors should benefit from Corus' temporary freeze in the price of structural steel. The prices of structural sections have increased every quarter since 2004, but Corus has decided to keep prices unchanged following April's rises and will reassess its fees in the autumn of 2007. Average prices for structural steel have increased by more than £100 per tonne over 2006-07, pushing book prices up to £900-1000 per tonne and Corus attributes this to strong demand across the whole of Europe. This has made it harder for contractors to confirm long-term project costs and led to them introducing price fluctuation clauses in their contracts. In turn, this has led some clients to switch to concrete-based construction. This move by Corus should bring some stability and certainty to steel-based construction and, if it is sustained, help to maintain the market share of steel against concrete.

Despite this freeze in the price of structural steel, the construction industry now faces another challenge in the form of a cement shortage. In March, 2007 suppliers warned that cement stocks were virtually non-existent and that there was little in the way of spare capacity to deal with any surge in demand or a disruption in supply. The shortage was expected to last until the autumn of 2007, with some suggesting that it may last into 2008 and close down some construction sites. However soon the stocks are replenished, the current shortage is bound to push up cement prices and hit builders' margins in the short term.

There has been significant consolidation in the construction industry in the first half of 2007

There has been significant consolidation in the construction industry in the first half of 2007. The two largest deals were the merger of Taylor Woodrow and

Wimpey in March, and Barratt's acquisition of Wilson Bowden in February. Two other smaller deals were the takeover of Crest Nicholson in March by a private equity group led by HBOS and Sir Tom Hunter, and Galliford Try's acquisition of Linden Homes in February. This continues the trend of consolidation seen in the industry over the last ten years, which has been driven by the scarcity of land, tighter planning regulations, and financing requirements that favour large firms. The number of housebuilders has fallen from around 30 in the mid-1990s to just ten in 2007.

Wimpey and Taylor Woodrow agreed to merge in March to create the UK's biggest housebuilder, worth around £5bn. Both companies had been keen to merge due to the slowdown in the US housing market, where both are heavily involved. The new company expects to make cost savings of £50-70m a year and some of this will be achieved through job cuts. The new company will be looking to exploit Taylor's land bank and Wimpey's build cost efficiency to raise margins.

Barratt won the takeover battle for Wilson Bowden in February 2007 with a £2.2bn shares and cash offer. The structure of the deal means the new group is worth around £4.3bn and is the UK's second-largest housebuilder by volume. The deal is expected to increase Barratt's presence in the Midlands and strengthen its strategic land bank. Furthermore, Barratt expects to make cost savings of around £45m pa for a one-off cost of £35m, although the savings could be higher, and it is planning to spend around £1.5bn a year on land.

Housebuilders remain attractive to financial buyers due to the shortage of good quality land and new homes, and the impact of these on house prices. This was highlighted by the takeover of Crest Nicholson by Castle Bidco, a private equity group, for £715m. This values the company at 2.48 times net asset value, well above the industry average of 1.3, reflecting the consortium's confidence that more value can be extracted from the assets. The consortium, led by HBOS and Sir Tom Hunter, had had an earlier bid rejected by the board in November 2006. Castle Bidco came back with a higher bid in January 2007 and this persuaded the Crest Nicholson board to finally open its books to the consortium. The board recommended the offer in March.

The smallest of the deals in 2007H1 was the purchase of Linden Homes, a specialist in brownfield land development, by Galliford Try for £109m, or £249m including debt. Including debt, the deal values Linden at 2.6 times net asset value and highlights just how keen firms are not to miss out on the opportunities in the industry and their confidence that more value can be delivered. The deal makes Galliford one of the ten largest UK-listed housebuilders.

Further consolidation is expected in the wake of these deals, with Redrow, Bovis and Bellway all tipped as takeover targets. However, their high valuations and

MINIMUM STANDARDS FOR ENERGY AND WATER EFFICIENCY		
Star rating	Energy (percentage improvement) ¹	Water (litres per person per day)
*	10	120
**	18	120
***	25	105
****	44	105
*****	100	80
*****	Zero-carbon ²	80

Note(s) : 1 Percentage improvement over Target Emission Rate as determined by the 2006 Building Regulation Standards;
2 Zero net emissions from all energy use in the home.

Source(s) : DCLG (2006), Code for Sustainable Housing.

the additional premiums commanded by their strong land banks are likely to put some bidders off.

Carillion has been reinstated as a bidder for Network Rail renewal work

Carillion, the infrastructure, building and business services specialist, has re-entered the market for Network Rail renewal work. Carillion's bidder status was suspended in August 2006 over concerns about its safety record, but Network Rail lifted the ban on Carillion tendering for new renewal work in February 2007, after being persuaded that Carillion's health and safety practices had improved. Since being reinstated Carillion has been awarded a £60m five-year signalling contract to deliver signalling renewals and improvements for Network Rail. How long Carillion continues to benefit from this reinstatement remains to be seen. Network Rail is planning to cut the number of renewals contractors from six to four in the summer of 2007 in a bid to meet efficiency targets.

Tesco is to provide affordable homes for its staff

In January 2007 Tesco announced plans to build up to 2,000 homes for its staff in London by 2010 to combat the lack of affordable housing. Tesco's plan is to create mixed-use developments where it opens a Tesco store and provides facilities such as houses and health centres alongside. Tesco is hoping the scheme will help to improve staff retention rates. One of the first of these schemes is in Streatham, where 250 flats and leisure

facilities are being built alongside a Tesco store. Tesco plans to sell the flats to a housing association and allow staff to continue to stay in them even if they leave Tesco. The programme is at a trial stage just now, but further developments are planned if the scheme is successful.

The construction industry is seeking clarification on what a zero-carbon home is

In line with its long-term energy policy(see <http://www.dti.gov.uk/files/file10719.pdf>)the government wants all new homes to be rated as zero-carbon by 2016, and it defines a zero-carbon home as one with zero net emissions of carbon dioxide from all energy use in the home. This includes energy consumed by appliances such as TVs and cookers, as well as heating, hot water and ventilation. Although zero-carbon homes will earn reductions in stamp duty, builders are confused about exactly what they have to do for homes to meet the criteria and they are seeking further clarification from the government. Others have argued that the state of current technology makes zero-carbon homes economically non-viable.

While the industry explores the idea of zero-carbon homes and confirms its full implications, it will also have to deal with the introduction of the Code for Sustainable Homes, which comes into force in April 2008. This may provide some insight into what the government wants from zero-carbon homes. Under the Code, all new homes (and in due course, all homes) need to have an Energy Performance Certificate, which will provide details on energy and water efficiency. Homes will be given a star

rating based on a sustainability score across the following categories:

- energy/CO₂;
- water;
- materials;
- surface water run-off;
- waste;
- pollution;
- health and well-being;
- management;
- ecology.

A home with basic energy and water efficiency standards (see chart: Minimum Standards for Energy and Water Efficiency) will achieve a one star rating, while homes with higher standards will achieve a higher rating, up to a maximum of six stars for zero-carbon homes. To receive six stars, however, the home will also have to embody sustainable practice in design and construction, and it is not clear how practical this is, as it can be expected to raise compliance costs for firms.

Road network contractors are concerned about the lack of work being tendered by the Highways Agency

In March 2007, the Department for Transport published two reports (the Nichols Review (see <http://www.dft.gov.uk/pgt/roads/nicholsreport/nicholsreport>) and a National Audit Office report) on how the Highways Agency operates. Both were critical of how the Agency operates and they suggested that the Agency did not have a tight enough rein on estimating costs for planned road jobs. For a long time, the Highways Agency has been seen by many in the industry to underestimate costs. The Nichols Review had been prompted by the rising cost of jobs under the Early Contractor Involvement (ECI) initiative. Although the Review supported the idea of ECI contracts, it was critical of some of the processes that schemes had to go through, including cost estimating. The NAO report, meanwhile, concluded that, as it stands, the government's road building programme will cost around 27% more than original estimates. The NAO report was also critical of the planning and delivery process, where public inquiries could lead to major redesigns and make it difficult to estimate costs accurately. Both reports made several recommendations and the NAO report outlined a better way of estimating costs for major road jobs. Contractors welcomed the findings on cost estimations and called for the Highways Agency to adopt the reports' recommendations. The DfT has accepted the reports' findings and plans to give priority to their implementation. The full implication of this is not clear, but if, in becoming more accurate, cost estimates rise and the Agency's budget is fixed, this suggests fewer projects will be commissioned.

The Highways Agency had also been criticised by contractors in March for its new CAT (Capability

Assessment Toolkit) scoring system for assessing contractors. The Agency had reviewed and redesigned the framework, and had tried to speed up the assessment process. However, contractors complained that the new process was very involved and time consuming, in part because of the extensive nature of the criteria. The new framework covers 24 topics including topics such as diversity; innovation; and social responsibility. Contractors complained that it can cost them up to £500,000 in time and resources to prepare for a CAT assessment.

The Highways Agency is now undergoing a major overhaul of its structure and operations, and it would appear this has had a knock-on effect on the flow of work being commissioned. Contractors are concerned about the lack of work being tendered by the Agency for 2007/08. The Agency published its spending plan for 2007/08 in March and this outlined over £2bn of planned spending on projects. The biggest major project at the moment is the widening of the M25, which is worth £5bn in total. However, contractors not involved on this project are concerned about the apparent shortage of projects elsewhere; they are coming to depend increasingly on smaller-scale work from councils. In its plans the Agency said that the spending in 2007/08 would include £969m on major projects and £839m on maintaining the network. It was also expecting to start eight new major projects in 2007/08.

Three regeneration and housing bodies are to be merged into one agency, Communities England

The government is planning to spend record amounts of public money on renewal projects over the long term, with the private sector willing to invest too, but the presence of several different bodies has often complicated the process. After a review of the current set-up in 2006, the government announced plans to create one agency to push forward sustainable housing and urban regeneration plans. The new agency, Communities England, will be formed by the merger of English Partnerships, the Housing Corporation and some functions of DCLG, and it will have an annual budget of around £4bn. The merger is expected to take two years to complete, during which time, each agency will continue to deliver its own existing programme.

These groups have been brought together to boost efficiency in the delivery of renewal projects and provide greater value for money. Communities England will also be tasked with finding ways of attracting extra private investment into renewal projects.

Many in the industry have welcomed the move, as it means they will only have to work with one body, and in the belief that it should help attract more private investment. Others, however, are less convinced that this overhaul will change things, with some seeing no real

case for it and no obvious synergies. It has also been pointed out that new legislation will have to be approved as English Partnerships and the Housing Corporation had their own statutory roles. The argument from some is that the change must come up from the bottom, through the planning system, rather than down from the top.

Robust output growth in Construction is exacerbating the skills shortages problem, forcing firms to be more selective with the work they take on, and this is expected to remain a theme over 2007-12

In the last update of *Industry and the British Economy* we discussed the current situation in the labour market for Construction, highlighting the current skills shortage and the prospect that growth over 2007-12 would place more pressure on the labour market. This was reiterated in March 2007 by ConstructionSkills, the employer-led skills body for the industry. It expects the volume of construction work to increase by 11% by 2011, driven by a surge in transport, schools and Olympics projects: the government's programme to renew or rebuild every secondary school is worth £4.7bn alone. Transport projects expected to drive demand include the redevelopment of Birmingham New Street and Nottingham train stations; the expansion of the Victoria underground line in London; and the expansion of several south coast ports. At the same time the current London office boom is expected to run until 2010. The strongest growth over 2007-12 is expected to be in London and the South East, and there are fears that this will suck in labour from other regions and push up regional wage rates. One of the consequences of this high volume of work and the skills shortages is that it is making it more difficult to attract firms to bid for large projects, as firms are more risk-aware. This is also having an adverse impact on regional development, with the South West Regional Development Agency, for example, noticing difficulties in attracting contractors for work planned in the South West.

To date the industry has struggled to recruit enough skilled labour and the influx of migrant workers had helped to fill the gaps. However, there are signs that not even this has been enough to keep up with the pace of demand, especially as some migrant workers are now returning home. ConstructionSkills estimates that almost 90,000 new recruits will be required by the industry each year between 2007 and 2011. Demand is expected to be strongest for trades such as bricklayers, cladders and roofers; although most job types will experience strong demand.

An interesting feature of the current skills shortage is that project manager roles are currently amongst the hardest to fill, not trades positions, a story supported by the Chartered Institute of Building (CIB). Companies such as Balfour Beatty are reporting a large number of

vacancies, especially for senior managers, which they are struggling to fill. The problem has been exacerbated as the construction industry has boomed and the number of suitable candidates has fallen due to low recruitment rates in the industry during the recession of the early 1990s. This gap is not likely to be addressed quickly as senior managers are typically the product of higher education and experience acquired over time, qualities that cannot be obtained quickly. Student demand for construction courses is healthy and so the shortage should ease over the next five to ten years as these students enter the workforce and gain experience. In the meantime, however, the prospects for existing senior managers will remain very strong over the short and medium terms.

25.3 Forecast

Output growth in Construction is forecast to accelerate in 2007, but moderate in the medium term

With so much of construction being an investment driven by confidence, the recent rises in interest rates and the forecast for slower growth in investment demand do not auger well for Construction in the short term. Demand for repair & maintenance work has been weak, although it has picked up. But it is new work that is supporting the steady strengthening of activity, and in particular, robust output growth in housing and private commercial work.

As interest and demand for mortgages appear to be weakening, it would seem housebuilders are responding. Recent figures show that although the volume of new housing orders rose in 2006, the value fell, suggesting that builders are constructing more affordable units. This should help to bring down house-price inflation and support the long term liquidity and sustainability of the housing market. Housebuilders remain optimistic about the short-term outlook for the housing market but the volume of new housing orders did fall slightly in 2007Q1.

On the private commercial side, the driving force is office demand. New orders for shop and entertainment premises have been volatile as firms wait to see the full impact of recent interest rate rises on consumer spending, while orders for health and education facilities have fallen back too. Office demand has strengthened and in some areas, such as the south-east, is expected to remain strong over the medium term. The total volume of new orders for private commercial work picked up in 2007Q1 after falling back in 2006.

Thus, it would appear that although demand is strong enough to support an acceleration in output growth in 2007, recent interest rates rises and the weakness in new orders trends will feed through into the industry at the end of 2007 and in 2008, leading to a very slight

slowdown output growth in 2008 (see table: Short-Term Estimates for Industry 25: Construction).

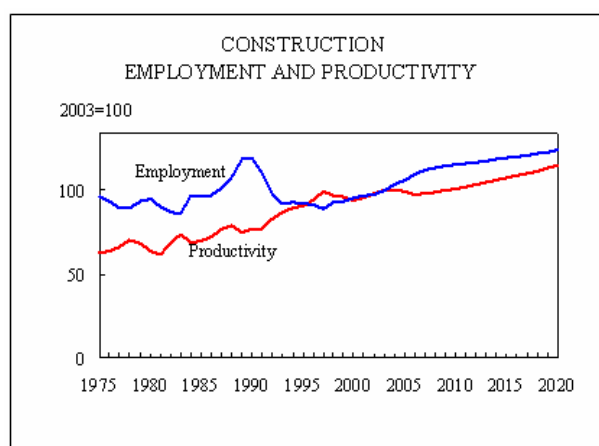
SHORT-TERM ESTIMATES FOR INDUSTRY 25: CONSTRUCTION

	2006	2007	2008
Commodity Supply			
Domestic supply (£m2003)	171927.0	176569.0	180922.0
Import supply (£m2003)	486.8	499.5	515.5
Total supply (£m2003)	172414.0	177068.0	181437.0
Commodity Demand			
Industrial demand (£m2003)	72376.5	74022.3	75028.7
Consumer demand (£m2003)	4008.4	4096.3	4231.0
Government demand (£m2003)	0.0	0.0	0.0
Investment demand (£m2003)	104878.0	110264.0	113585.0
Stockbuilding demand (£m2003)	1326.1	191.1	381.6
Residual error (£m2003)	-10601.9	-11940.5	-12235.0
Domestic demand (£m2003)	182589.0	188574.0	193226.0
Export demand (£m2003)	426.7	435.2	446.2
Total demand (£m2003)	172414.0	177068.0	181437.0
Change in Supply			
Domestic supply (% pa)	1.1	2.7	2.5
Import supply (% pa)	-23.4	2.6	3.2
Total supply (% pa)	1.0	2.7	2.5
Change in Demand			
Industrial demand (% pa)	1.4	2.3	1.4
Consumer demand (% pa)	0.7	2.2	3.3
Government demand (% pa)	0.0	0.0	0.0
Investment demand (% pa)	7.0	5.1	3.0
Domestic demand (% pa)	4.8	3.3	2.5
Export demand (% pa)	-27.9	2.0	2.5
Total demand (% pa)	1.0	2.7	2.5

Source(s) : ONS and Cambridge Econometrics.
Ref : C72F6A June 2007.

The current shortage of skills across all levels of occupations is beginning to threaten the delivery of some projects and so can also be expected to contain growth in the industry.

The shortage of skills remains an issue for the industry and the current low productivity growth, coupled with the generally buoyant conditions, is driving strong growth in employment. Employment growth is expected to slow over the long term, however, as better skilled workers join the workforce through the National Skills Academy and raise productivity (see chart: Construction Employment and Productivity).



Over the medium and long terms, an increasing share of the new housing stock is likely to be *affordable housing* as the industry works with the government to tackle affordability issues. One challenge for housebuilders, however, will be to ensure that these affordable homes meet the standards for sustainability without making them too expensive. The industry does not yet fully understand the implications and demands of new codes and initiatives. Over the longer term, output is expected to average 2% pa (see table: Long-Term Forecasts for Industry 25: Construction), in line with the historical average.

LONG-TERM FORECASTS FOR INDUSTRY 25: CONSTRUCTION

	1997- 2005	2005	2006	2007	2008	2009	2000-05	2005-10	2010-15	2015-20
Growth in Supply										
Domestic supply (% pa)	2.3	2.0	1.1	2.7	2.5	2.5	3.3	2.2	2.0	2.0
Import supply (% pa)	15.7	209.2	-23.4	2.6	3.2	2.7	41.1	-3.1	2.1	2.0
Growth in Demand										
Domestic demand (% pa)	3.9	1.9	4.8	3.3	2.5	2.5	4.9	3.1	2.0	2.0
Export demand (% pa)	7.4	73.6	-27.9	2.0	2.5	3.0	17.6	-4.5	1.7	1.4
Employment										
Employment change (% pa)	2.2	2.5	3.1	2.2	1.0	1.1	2.1	1.7	0.6	0.8
Employment change ('000 pa)	42.0	50.9	64.6	46.2	21.7	23.8	41.5	35.5	14.6	19.0
Productivity (% pa)	0.0	-0.6	-2.0	0.5	1.0	1.0	1.1	0.3	1.2	1.4
Export and Import Shares										
Exports/supply (%)	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2
Imports/demand (%)	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3
Price Inflation										
Industry price (% pa)	4.8	-0.1	2.9	3.2	3.2	3.2	4.0	3.1	3.0	3.0
Value of Trade										
Export value (£bn)	0.0	0.0	0.6	0.7	0.7	0.8	0.0	0.8	1.0	1.2
Import value (£bn)	0.7	0.7	0.5	0.5	0.5	0.5	0.7	0.5	0.6	0.6
Exports-imports (£bn)	-0.7	-0.7	0.1	0.1	0.2	0.2	-0.7	0.2	0.4	0.6

Source(s) : ONS and Cambridge Econometrics.

Ref : C72F6A June 2007.